

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF ALASKA

NATIVE VILLAGE OF POINT HOPE,  
ALASKA COMMUNITY ACTION ON  
TOXICS, and the NORTHERN ALASKA  
ENVIRONMENTAL CENTER,

Plaintiffs,

v.

U.S. ENVIRONMENTAL PROTECTION  
AGENCY,

Defendant,

and

NANA REGIONAL CORPORATION, INC.  
and TECK ALASKA INCORPORATED,

Intervenor-Defendants.

Case No. 3:11-cv-00200-TMB

O R D E R

**I. INTRODUCTION**

This is an action by Plaintiffs Native Village of Point Hope, Alaska Community Action on Toxics, and the Northern Alaska Environmental Center for violations of the Clean Water Act (“CWA”) by the United States Environmental Protection Agency (“EPA”).<sup>1</sup> Specifically, Plaintiffs contend that EPA’s approval of site-specific water quality criterion for total dissolved solids (“TDS”) at the Main Stem of Red Dog Creek during the spawning season for Arctic grayling was arbitrary or capricious. Intervenor-Defendants Nana Regional Corporation, Inc. (“Nana”) and Teck Alaska Incorporated (“Teck”) were previously given permission to intervene.

---

<sup>1</sup> Dkt. 1.

The Parties have filed cross-motions for summary judgment.<sup>2</sup> The Court heard oral argument on August 29, 2012. For the reasons discussed in detail below, Plaintiffs' motion for summary judgment is DENIED, and EPA's motion for summary judgment is GRANTED.

## II. BACKGROUND

### A. *The CWA, Effluent Limitations, and Water Quality Standards*

The purpose of the CWA is "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."<sup>3</sup> The CWA generally prohibits discharges from point sources to the navigable waters of the United States unless they comply with the Act.<sup>4</sup> The Act regulates water quality through effluent limitations and water quality standards.<sup>5</sup> "Effluent limitations' are promulgated by the EPA and restrict the quantities, rates, and concentrations of specified substances which are discharged from point sources."<sup>6</sup> "Water quality standards' are, in general, promulgated by the States and establish the desired condition of a waterway."<sup>7</sup>

Water quality standards "supplement effluent limitations 'so that numerous point sources, despite individual compliance with effluent limitations, may be further regulated to prevent water quality from falling below acceptable levels.'"<sup>8</sup> They are subject to EPA's approval, and EPA may promulgate standards where a State fails to comply with EPA's recommended

---

<sup>2</sup> Dkts. 61, 74.

<sup>3</sup> *Arkansas v. Oklahoma*, 503 U.S. 91, 101 (1992) (quoting 33 U.S.C. § 1251(a)).

<sup>4</sup> § 1311(a).

<sup>5</sup> *Arkansas*, 503 U.S. at 101.

<sup>6</sup> *Id.* (citing §§ 1311, 1314).

<sup>7</sup> *Id.* (citing § 1313).

<sup>8</sup> *Id.* (citing *EPA v. Cal. ex rel. State Water Res. Control Bd.*, 426 U.S. 200, 205 n.12 (1976)).

changes.<sup>9</sup> Water quality standards consist of “designated uses,” criteria based on designated uses, and antidegradation policies.<sup>10</sup> The “designated uses of the navigable waters involved” may include propagation of fish and wildlife, recreation, and industrial purposes.<sup>11</sup> Water quality criteria may include pollutants and toxic pollutants if the State establishes sufficient parameters to protect the designated uses and water quality.<sup>12</sup> The State must also establish numerical values for the criteria based on: (i) scientific guidance developed by the EPA pursuant to § 1314(a) relating to the effects of constituent concentrations on a particular species or human health; (ii) § 1314(a) guidance “modified to reflect site-specific conditions”; or (iii) “[o]ther scientifically defensible methods[.]”<sup>13</sup> An “antidegradation policy” is “a policy requiring that state standards be sufficient to maintain existing beneficial uses of navigable waters, preventing their further degradation.”<sup>14</sup>

The “National Pollutant Discharge Elimination System” (“NPDES”) is the “primary means for enforcing” effluent limitations and water quality standards.<sup>15</sup> Under this system, the EPA may issue permits allowing authorized persons to discharge pollutants,<sup>16</sup> which are

---

<sup>9</sup> *Id.* (citing § 1313(c)).

<sup>10</sup> *See Pennaco Energy, Inc. v. EPA*, 692 F. Supp. 2d 1297, 1300-01 (D. Wyo. 2009) (citations omitted).

<sup>11</sup> § 1313(c)(2)(A).

<sup>12</sup> 40 C.F.R. § 131.11(a).

<sup>13</sup> § 131.11(b)(1); *see also* § 131.3(c).

<sup>14</sup> *PUD No. 1 of Jefferson Cnty. v. Wash. Dep’t of Energy*, 511 U.S. 700, 705 (1994).

<sup>15</sup> *Arkansas*, 503 U.S. at 101 (citation omitted).

<sup>16</sup> § 1342.

otherwise unlawful.<sup>17</sup> “An NPDES permit serves to transform generally applicable effluent limitations and other standards including those based on water quality into the obligations (including a timetable for compliance) of the individual discharger, and the [CWA] provide[s] for direct administrative and judicial enforcement of permits.”<sup>18</sup>

The Alaska Department of Environmental Conservation (“ADEC”) has developed statewide water quality criteria and an antidegradation policy pursuant to the Act.<sup>19</sup> The Act also provides that states may apply to the EPA to carry out a complying permitting program.<sup>20</sup> The EPA delegated its permitting authority to the State of Alaska on October 31, 2008.<sup>21</sup> EPA, however, has retained jurisdiction over certain NPDES permits with unresolved appeals.

B. *Red Dog Mine & Red Dog Creek*

Nana owns, and Teck operates, Red Dog Mine in Northwest Alaska. It is located approximately 50 miles inland from the Chukchi Sea, 80 miles north of Kotzebue, and 100 miles east from Point Hope. Teck originally developed the Mine in the late 1980s to mine lead and zinc. The Mine facilities include a tailings impoundment and water processing facility. As part of the Mine’s operations, Teck disposes of treated wastewater in order to maintain the water level at the tailings impoundment at safe levels. The water level in the impoundment is near

---

<sup>17</sup> § 1311(a); *Nw. Env’tl. Def. Ctr. v. Brown*, 640 F.3d 1063, 1070 (9th Cir. 2011) (“[T]he CWA prohibits the discharge of any pollutant from a point source into navigable waters of the United States without an NPDES permit.” (citations omitted)), *cert. granted*, \_\_ S. Ct. \_\_, No. 11-338, 2012 WL 2368685, at \*1 (June 25, 2012).

<sup>18</sup> *State Water Res. Control Bd.*, 426 U.S. at 205 (citing §§ 1319, 1365).

<sup>19</sup> Alaska Admin. Code tit. 18, §§ 70.015, 70.020.

<sup>20</sup> § 1342(b).

<sup>21</sup> 73 Fed. Reg. 66,243, 66,245 (Nov. 7, 2008).

capacity and the water, itself, is highly toxic. Accordingly, Teck must discharge enough treated wastewater to ensure that new precipitation runoff can be captured and treated before discharge. It must do this between the spring thaw in May and the time that the water freezes again, typically in September or October.

Teck discharges this treated wastewater into the Middle Fork of Red Dog Creek pursuant to an NPDES permit. The treated wastewater includes TDS, primarily in the form of calcium and magnesium sulfates from the wastewater treatment process. TDS generally consists of various compounds dissolved in water, including metals (such as chromium and lead), carbonates, sulfates, and calcium.

Historically, Red Dog Creek had three forks (the North Fork, Middle Fork, and South Fork) which flowed into the Main Stem. The South Fork is now part of the Mine's tailings impoundment. The Main Stem is approximately two miles long and flows into the 32 mile long Ikalukrok Creek, which in turn flows into the Wulik River, which eventually drains into the Chukchi Sea 40 miles later. Arctic grayling migrate to the Main Stem to spawn over a six to eleven day period occurring between mid-May or mid-June, depending on the water temperature.

Red Dog Creek has high levels of naturally occurring toxins due to the presence of natural ore bodies, some of which are the subject of the Mine's operations. Since Teck developed the Mine, the water quality in Red Dog Creek has actually improved and fish use of the Main Stem has increased. Nonetheless, Teck has had difficulty meeting the requirements of its NPDES permits.

C. *Red Dog Creek TDS Limits & Studies*

A 1998 NPDES permit limited TDS concentrations to a 176 milligrams per liter (mg/L) monthly average and 196 mg/L daily maximum.<sup>22</sup> Teck, however, was never able to comply with those limits. In 2001, Teck applied to ADEC for TDS site-specific criteria for the Main Stem of Red Dog Creek of 500 mg/L during Arctic grayling spawning season and 1,500 mg/L for the rest of the year. ADEC approved both criteria; however, EPA only approved the 1,500 mg/L criterion. EPA withheld judgment on the 500 mg/L criterion based on a 2003 study by Michael S. Stekoll and others. Nonetheless, in approving the 1,500 mg/L criterion for the non-spawning season, EPA reviewed a wide variety of laboratory toxicity studies, literature, and field surveys indicating that the criterion would protect aquatic life.<sup>23</sup> EPA's approval of the non-spawning season site-specific criterion was not challenged.

1. *The Stekoll et al. Study*

Michael S. Stekoll, William W. Smoker, Ivan A. Wang, and Barbi J. Failor had analyzed the acute and chronic impacts of TDS exposure on various salmonid species at different life stages using a TDS composition modeled after the composition at Red Dog Mine. They summarized their results as follows:

We found that for short (24- to 96-hour) exposures, fertilization was the most sensitive stage to TDS exposure. We observed reduced fertilization rates in concentrations of TDS as low as 250 ppm. Natural background levels of TDS in

---

<sup>22</sup> A.R. Doc. 5 at 50.

<sup>23</sup> A.R. Doc. 36 at 449-52; *see also* A.R. Doc. 47 at 840 (“Based on field studies that document the biota and life stages of the biota present in main stem Red Dog Creek, the specific laboratory TDS toxicity studies completed for simulated Red Dog Mine TDS, and the literature review of other studies that characterize the effects of TDS on aquatic life, EPA believes that 1,500mg/l TDS is protective for all life-stages with the possible exception of the fertilization-to-egg-hardening phase.”).

our control water (Salmon Creek, Juneau) typically range from 20 to 60 ppm. We also observed differences in sensitivity to TDS at fertilization between species of salmonids. King, pink, and coho salmon were most sensitive, and Arctic char were least sensitive. Chronic, continuous, exposures to TDS revealed that fertilization and hatch were stages of development vulnerable to long-term TDS exposure.<sup>24</sup>

They further observed that their results for chronic tests were limited to the specific population of coho salmon tested. They cautioned against drawing conclusions for other species, stating that “[i]t is likely that other species will be adversely affected by TDS, especially during fertilization, but it is not possible to extrapolate our results to predict the effects at a given concentration.”<sup>25</sup> In conclusion, they recommended further testing:

Based on our results, site-specific tests may be the best method to use to set limits for TDS in issuing discharge permits. Such tests could include short term bioassays at critical stages, such as fertilization or hatch. Other long-term assays could be employed if deemed necessary for understanding effects to critical populations.<sup>26</sup>

Based on these results and against the background of the other studies, literature, and surveys it had reviewed, EPA withheld approval of the site-specific criterion for Arctic grayling spawning season in light of the possible impacts of the TDS in “Red Dog Mine effluent . . . on fertilization success in some salmonid species.”<sup>27</sup>

---

<sup>24</sup> A.R. Doc. 43 at 631.

<sup>25</sup> *Id.* at 717.

<sup>26</sup> *Id.* at 718.

<sup>27</sup> A.R. Doc. 36 at 444, 452; *see also id.* at 450 (“After egg hardening, fish do not appear to be affected by elevated concentrations of TDS up to 2000 mg/l.”).

## 2. *The Brix & Grosell Study*

In 2005, Kevin V. Brix and Martin Grosell released a follow up study examining the effects of TDS on Arctic grayling and Dolly Varden. The study was intended “to determine effect thresholds with greater precision than ha[d] been achieved to date.”<sup>28</sup> Based on Stekoll et al.’s results and discussions with the regulatory authorities, Brix and Grosell focused on fertilization. EPA initially recommended utilizing a “species mean value ” – calculated from the geometric mean of the values of the concentration causing an effect in twenty percent of the sample in each test – to determine the site-specific criterion in accord with its then “current practices.”<sup>29</sup> Brix and Grosell ran a total of eight valid Arctic grayling tests with the following results:<sup>30</sup>

<i>Test</i>	<i>Highest Tested Concentration</i>	<i>No Significant Effect Concentration</i>	<i>Lowest Observable Effect Concentration</i>	<i>20% Effect Concentration</i>
1	921	921	>921	>921
2	1381	1381	>1381	>1381
3	1381	254	503	748
4	1381	132	254	202
8	2782	2782	>2782	>2782
9	2782	2782	>2782	>2782
10	2782	2782	>2782	>2782
11	2782	2782	>2782	>2782

The researchers found that the first four tests from 2004 “did not resolve the uncertainty associated with previous studies.”<sup>31</sup> Notably, “two of the tests conducted indicated no significant

---

<sup>28</sup> A.R. Doc. 23 at 161.

<sup>29</sup> A.R. Doc. 1 at 6; *see also* A.R. Doc. 168 at 3942.

<sup>30</sup> *See* A.R. Doc. 23 at 173. Tests 5 through 7 were “not reported due to unacceptable control fertilization.” *Id.*

<sup>31</sup> *Id.* at 177.



effect of TDS on fertilization success up to the highest concentration tested,” while “the other two tests did indicate effects.”<sup>32</sup> Additionally, “for the two tests where effects were observed, a reduced effect was observed in the highest TDS concentration tested . . . .”<sup>33</sup> Brix and Grosell indicated that the variability might “be the result of natural variability in the viability and sensitivity of Arctic grayling embryos to TDS.”<sup>34</sup>

After running additional experiments with Dolly Varden, the researchers “hypothesized that the variable results observed in the 2004 Arctic grayling experiments may have been caused by excessive holding time for the milt.”<sup>35</sup> They accordingly conducted additional tests with reduced holding times for milt that were otherwise identical to the 2004 tests. These latter four tests “provided very consistent data indicating no effects on fertilization success up to the highest TDS concentration tested.”<sup>36</sup>

Reviewing the regulatory implications, Brix and Grosell noted that their tests yielded a species mean value of 1,357 mg/L using the twenty-percent effect concentration. They cautioned, however, “that the weight of the evidence now strongly suggests that TDS is having no significant effect on Arctic grayling fertilization success and that the [twenty-percent effect

---

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> *Id.*

<sup>35</sup> *Id.* at 179. Notably, the Alaska Office of Habitat Management and Permitting later suggested that the low results in Tests 3 and 4 may have been the result of using gametes that were not viable, as they were collected from fish near the end of the spawning period. *See* A.R. Doc. 3 at 18-19.

<sup>36</sup> A.R. Doc. 23 at 179. Brix and Grosell indicated that although the results did not provide “definitive evidence that milt holding time was the sole factor contributing to the observed variability in 2004,” they were “supportive” of that hypothesis. *Id.*

concentration] of 202 mg/[L] observed in a single experiment is perhaps erroneous.”<sup>37</sup> They accordingly suggested that EPA guidelines, professional judgment could be used to discard “a single outlier value,” yielding a species mean value of 1,782 mg/L, which would be “consistent with the [species mean value] for Dolly Varden.”<sup>38</sup> Accordingly, they concluded that the site-specific limit of 1,500 mg/L “or a value near it” was “appropriate for the protection of” fertilization in salmonids.<sup>39</sup>

D. *EPA’s Approval of the Site-Specific Criterion*

In January of 2006, ADEC adopted a change in the site-specific criterion for TDS at the Main Stem during the Arctic grayling spawning period to 1,500 mg/L based on Brix and Grosell’s results.<sup>40</sup> In April, EPA approved the site-specific criterion.<sup>41</sup> Reviewing Brix and Grosell’s study, EPA noted that the eight tests resulted in “a geometric mean value of 1,357 mg/L,” but that all but three of the tests had exceeded the mean value with all 2005 tests “far exceeding this mean value (>2,782 mg/L).”<sup>42</sup> It concluded that the very low result in Test 4 should not be excluded as an outlier as “there was no basis for concluding that the 202 mg/L result was due to errors occurring during the field collection, laboratory processing and handling,

---

<sup>37</sup> *Id.* at 180.

<sup>38</sup> *Id.*

<sup>39</sup> *Id.* at 181.

<sup>40</sup> A.R. Doc. 3.

<sup>41</sup> A.R. Doc. 1.

<sup>42</sup> *Id.* at 6.

or toxicity testing procedures[.]”<sup>43</sup> Nonetheless, it found that “1,500 mg/L is appropriate to use as the year-round water quality criterion in Red Dog Creek,” explaining:

EPA believes a weight of the evidence approach provides a reasonable basis to interpret the available TDS toxicity data to Arctic grayling. All of the 2005 data explicitly support an SSC of 1,500 mg/L and half of the 2004 data support a TDS SSC in excess of the maximum TDS concentration tested (>921 and >1,381 mg/L). The consistency of the results from the 2005 Arctic grayling all demonstrate no effect on reproduction at TDS concentrations in excess of the maximum TDS concentration tested (2,782 mg/L). Dolly Varden toxicity test results also support 1,500 mg/L which will protect downstream spawning populations.<sup>44</sup>

### III. LEGAL STANDARD

Under the APA, the court must “hold unlawful and set aside agency action, findings, and conclusions found to be . . . arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law . . . .”<sup>45</sup> Judicial “review is ‘narrow’ but ‘searching and careful.’”<sup>46</sup> Under this standard, the “critical” consideration is “whether there is ‘a rational connection between the facts found and the conclusions made’ in support of the agency’s action.”<sup>47</sup> Review is “deferential,” and the reviewing court should:

not vacate the agency’s decision unless it has [1] “relied on factors which Congress had not intended it to consider, [2] entirely failed to consider an important aspect of the problem, [3] offered an explanation for its decision that runs counter to the evidence before the agency, or [4] is so implausible that it

---

<sup>43</sup> *Id.* at 7.

<sup>44</sup> *Id.*

<sup>45</sup> 5 U.S.C. § 706(2)(A).

<sup>46</sup> *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1065 (9th Cir. 2004) (citations omitted).

<sup>47</sup> *W. Watersheds Project v. Kraayenbrink*, 632 F.3d 472, 481 (9th Cir. 2011) (citation omitted).

could not be ascribed to a difference in view or the product of agency expertise.”<sup>48</sup>

Accordingly, the court must “not substitute its [own] judgment for that of the agency,” and should uphold even an unclear decision where the agency’s path may be reasonably discerned.<sup>49</sup>

The court accords the highest deference “when reviewing an agency’s technical analyses and judgments involving the evaluation of complex scientific data within the agency’s technical expertise.”<sup>50</sup> It is not the court’s place to “instruct[] the agency, choos[e] among scientific studies, and order[] the agency to explain every possible scientific uncertainty.”<sup>51</sup> The agency has “discretion to rely on its own qualified experts” in the face of conflicting views, even where “as an original matter, a court might find [the] contrary views more persuasive.”<sup>52</sup> “[S]ummary judgment is an appropriate mechanism for deciding the legal question of whether the agency could reasonably have found the facts as it did.”<sup>53</sup>

---

<sup>48</sup> *Butte Env'tl. Council v. U.S. Army Corps of Eng'rs*, 620 F.3d 936, 945 (9th Cir. 2010) (citations omitted).

<sup>49</sup> *Id.* (citing *FCC v. Fox Television Stations, Inc.*, 129 S. Ct. 1800, 1810 (2009)).

<sup>50</sup> *League of Wilderness Defenders Blue Mountains Biodiversity Project v. Allen*, 615 F.3d 1122, 1130 (9th Cir. 2010) (citation omitted); *see also Gifford Pinchot*, 378 F.3d at 1066 (noting that the court must accord “substantial deference” to the agency’s scientific methodology).

<sup>51</sup> *Lands Council v. McNair*, 629 F.3d 1070, 1074 (9th Cir. 2010) (citation omitted).

<sup>52</sup> *Id.* (citation omitted).

<sup>53</sup> *City & Cnty. of S.F. v. United States*, 130 F.3d 873, 877 (9th Cir. 1997) (quoting *Occidental Eng'g Co. v. INS*, 753 F.2d 766, 770 (9th Cir. 1985)).

#### IV. DISCUSSION

Plaintiffs contend that they have standing to challenge EPA's approval of the site-specific criterion and that EPA's approval was arbitrary and capricious because: (a) EPA allegedly failed to consider the long term impacts of the site-specific criterion on Arctic grayling; (b) EPA's decision was not supported by the evidence; (c) EPA improperly applied a "weight of the evidence" standard; and (d) EPA improperly failed to conduct an antidegradation analysis. EPA and Intervenor dispute all of these contentions and Intervenor further assert that Plaintiffs lack standing. As discussed below, even if Plaintiffs have standing to assert their claims, the Court concludes that EPA's approval of the site-specific criterion was not arbitrary or capricious.

##### A. *Long Term Impacts*

Plaintiffs argue that EPA's approval of the site-specific criterion was arbitrary or capricious because EPA failed to consider long term or chronic impacts of TDS exposure as identified by Stekoll et al. and required by EPA's own internal guidelines. Plaintiffs' argument, however, ignores the context of EPA's initial decision to withhold approval of the site-specific criterion for Arctic grayling spawning season in 2003. At that time, EPA's review of the studies, literature, and surveys – including Stekoll et al. – led it to become concerned about the impact of TDS on "fertilization success."<sup>54</sup> EPA was otherwise satisfied that 1,500 mg/L would be protective of Arctic grayling.<sup>55</sup> Accordingly, fertilization success is exactly what the Brix and Grosell study focused on. Indeed, although Stekoll et al. referred to possible studies of long term impacts, they emphasized the need for "short term bioassays at critical stages, such as

---

<sup>54</sup> See A.R. Doc. 36 at 449-52.

<sup>55</sup> *Id.* at 452; A.R. Doc. 47 at 840.

fertilization or hatch.”<sup>56</sup> Stekoll et al. also cautioned against extrapolating based on the results from their chronic assays.<sup>57</sup> Accordingly, contrary to Plaintiffs’ counsel’s contention at oral argument, EPA did not ignore “an important aspect of the problem.”<sup>58</sup>

B. *Evidentiary Support*

Plaintiffs contend that the Brix and Grosell study does not support the site-specific criterion of 1,500 mg/L for Arctic grayling spawning season. Plaintiffs note that Brix and Grosell arrived at a species mean value of 1,357 mg/L and, focusing on the 2004 tests, contend that the results were “highly variable and largely inconclusive . . . regarding what level of TDS concentration would protect the growth and propagation of fish, specifically Arctic grayling fertilization.”<sup>59</sup> Six of the eight tests, however, showed no effects at the highest level tested. Plaintiffs note that for two of those tests, the highest level tested was below the approved site-specific criterion and therefore, argue that they may have shown possible effects at a level lower than 1,500 mg/L. They ignore, however, that all of the 2005 results showed no effects at levels

---

<sup>56</sup> A.R. Doc. 43 at 718.

<sup>57</sup> *Id.* at 717. In any event, as both EPA and Intervenors note, in their chronic assays, Stekoll et al. observed mortality at TDS levels *significantly* higher than 1,500 mg/L. *Id.* at 708-09, 716.

<sup>58</sup> For similar reasons, the decision to focus on fertilization rather than hatch was reasonable. Although Stekoll et al. mention hatch as a possible stage for further study, the plain import of their study was that further research was needed on fertilization. *See, e.g., id.* at 717 (noting that “[i]t is likely that other species will be adversely affected by TDS, especially during fertilization . . .”). Additionally, although Plaintiffs repeatedly suggest that EPA failed to consider impacts on Dolly Varden, the site-specific criterion at issue concerned *Arctic grayling spawning season*, which is a six to eleven day period. Dolly Varden are not present in the Main Stem at that time of year. *See* A.R. Doc. 3 at 20. Plaintiffs did not challenge the generally applicable site-specific criterion in effect for the remainder of the year, and their focus on Dolly Varden is accordingly, unavailing.

<sup>59</sup> Dkt. 62 at 35.

well above the site-specific criterion, and if the researchers had continued testing until they reached the level that demonstrated an effect on twenty percent of the sample, that may have drastically increased the species mean value. Based on the consistency of the 2005 tests and the Dolly Varden testing, the researchers and EPA reasonably concluded that 1,500 mg/L would protect Arctic grayling during spawning season.

EPA articulated a rational connection between the evidence and its decision. The Court cannot conclude that EPA's explanation ran "counter to the evidence before the agency" or was "so implausible that it could not be ascribed to a difference in view or the product of agency expertise." Nor is EPA required to address every possible scientific uncertainty. To the contrary, it is readily apparent that Plaintiffs' disagreement with EPA's decision is merely a difference in view. In the context of APA review, EPA's decision among conflicting points of view is entitled to deference.

C. *Weight of the Evidence Standard*

Plaintiffs argue that EPA's use of a "weight of the evidence" standard was "unscientific" and deviated "from the agency's established procedures for establishing site-specific criteria."<sup>60</sup> Accordingly, they argue that this "indicates that the agency developed this approach solely to reach the desired end result of approving the site-specific criterion, regardless of scientific evidence to the contrary."<sup>61</sup> Plaintiffs also contend that EPA failed to explain why it deviated from the approach it had previously recommended and provided for in its guidance materials.<sup>62</sup>

---

<sup>60</sup> *Id.* at 38.

<sup>61</sup> *Id.*

<sup>62</sup> In their reply brief and at oral argument, Plaintiffs toned down their criticism, conceding that EPA may use a weight of the evidence approach. Instead, they argue that EPA deviated from its

The Court finds these arguments unpersuasive. Although EPA did initially favor determining the site-specific criterion based on the species mean value, that does not mean that the species mean value was the only scientifically valid method of doing so or that EPA was forever precluded from reconsidering the value of that measure in light of the evidence. Moreover, EPA did acknowledge that it initially recommended using the species mean value and explain why it was not relying on the species mean value in approving the site-specific criterion. It noted that “[a]ll but three of the individual Arctic grayling toxicity test results exceed[ed] th[e] mean value with all of the 2005 tests far exceed[ing] this mean value (>2,782 mg/L).”<sup>63</sup> EPA plainly believed that the species mean value did not accurately reflect the level necessary to protect spawning Arctic grayling populations. Plaintiffs would appear to require EPA to inflexibly adhere to a predetermined methodology even where the evidence indicates that the methodology is not accurate. To the contrary, EPA is permitted to exercise its scientific judgment.

Indeed, if EPA were simply manipulating the results to achieve a desired result, it could have simply accepted Brix and Grosell’s suggestion that Test 4 should be excluded as an outlier. To its credit, EPA carefully analyzed that suggestion and rejected it. Then, it employed the “weight of the evidence” standard, explaining that the consistency of the 2005 results, the fact

---

previously announced approach “without adequate explanation, and its use of the weight of the evidence approach in this case was unreasonable.” *See* Dkt. 81 at 24-25 n.26. Plaintiffs also acknowledge that EPA’s guidelines indicate that deviation from the procedures set forth therein may be appropriate in some circumstances and that EPA has used a weight of the evidence approach for developing water quality criteria to protect human health from toxics and carcinogens, as well as in other contexts. *See id.* at 25, 26 n.29. In any event, numerical water quality criteria may be set not only with reference to EPA guidelines, but also “[o]ther scientifically defensible methods.” 40 C.F.R. § 131.11(b)(1)(iii).

<sup>63</sup> A.R. Doc. 1 at 6.



that in six of the eight tests showed no effects at highest level tested, and the Dolly Varden results all supported a site-specific criterion at a level higher than that dictated by a strict application of the geometric mean value.<sup>64</sup> EPA did not rely on an improper standard and the Court cannot conclude that EPA's decision to rely on the "weight of the evidence" standard was arbitrary or capricious.

D. *Antidegradation Review*

Plaintiffs contend that EPA was required to conduct, or EPA was required to have ADEC conduct, an antidegradation review before approving the site-specific criterion and failed to do so. EPA and Intervenor contend that antidegradation review was not required. The Parties' arguments turn on their reading of 33 U.S.C. § 1313(d)(4)(B), which requires:

any effluent limitation based on a total maximum daily load or other waste load allocation established under this section, or any water quality standard established under this section, or any other permitting standard may be revised only if such revision is subject to and consistent with the antidegradation policy established under this section.<sup>65</sup>

---

<sup>64</sup> A.R. Doc. 1 at 6-7. Plaintiffs point to an email from EPA employees which they contend demonstrates "that EPA manipulated its methodology of analyzing the relevant data to obtain the desired result." Dkt. 62 at 40-41 (discussing A.R. Doc. 162). In it, one of the employees suggested that he did not think that the result in Test 4 could not be excluded as an outlier, which is consistent with EPA's final determination. Accordingly, he suggested that a "weight of the evidence" approach would "justify" a limit of either 1,357 mg/L or 1,500 mg/L. He also indicated, however, that he had no substantive comments on the content or results of the Brix and Grosell study, which he praised as "well written." Neither of the employees suggested that the 1,500 mg/L was scientifically unjustified or indefensible or otherwise not supported by the data. Similarly, in another email cited by Plaintiffs, a Teck employee expressed agreement "that the permit limit will be determined by the geo mean of the EC20s" but also said "we should not get so locked into this as to preclude common sense if the data points us to a different way." A.R. Doc. 167 at 3940.

<sup>65</sup> The Main Stem is considered a "Tier 2" water. Under EPA's regulations, States must adopt an "antidegradation policy" for "Tier 2" waters that must maintain and protect water quality even where it exceeds the levels necessary to support propagation of fish, shellfish, and wildlife and recreation unless allowing lower water quality is necessary to accommodate important economic

Plaintiffs read this provision as requiring that any revision to any water quality standard be deemed “subject to and consistent with” the applicable antidegradation policy. EPA and Intervenor read the provision only to require a determination of consistency with the antidegradation policy for a revision to an “effluent limitation based on . . . any water quality standard.” The Parties have not directed the Court to any decisions analyzing the issue and the Court has not found any in the course of its own research.<sup>66</sup>

“[S]tatutory interpretation ‘begins with the statutory text.’”<sup>67</sup> “The words of a statute must be read in their context and with a view to their place in the overall statutory scheme.”<sup>68</sup> Statutory titles and section headings may aid in understanding the statutory context and scheme.<sup>69</sup> The goal of statutory interpretation is “to ‘understand the statute as a symmetrical and

---

or social development in the area as long as the existing uses are fully protected. *See* 40 C.F.R. § 131.12(a)(2).

<sup>66</sup> In *PUD No. 1 of Jefferson Cnty. v. Wash. Dep’t of Energy*, 511 U.S. 700, 705 (1994), the Supreme Court stated that the CWA “permits the revision of certain effluent limitations or water quality standards ‘only if such revision is subject to and consistent with the antidegradation policy established under this section,’” citing to § 1313(d)(4)(B). Other courts have since made similar statements. *See Ky. Waterways Alliance v. Johnson*, 540 F.3d 466, 471 (6th Cir. 2008). The statements appear in sections of opinions discussing the statutory and regulatory background and do not purport to resolve the issue that the Parties raise here.

<sup>67</sup> *Miranda v. Anchondo*, 684 F.3d 844, 849 (9th Cir. 2012) (citation omitted).

<sup>68</sup> *United States v. Wing*, 682 F.3d 861, 867 (9th Cir. 2012) (citation omitted).

<sup>69</sup> *INS v. Nat’l Ctr. for Immigrants’ Rights*, 502 U.S. 183, 189 (1991) (“[T]he title of a statute or section can aid in resolving an ambiguity in the legislation’s text.”); *Pronsolino v. Nastri*, 291 F.3d 1123, 1138 (9th Cir. 2002) (citing *Porter v. Nussle*, 534 U.S. 516, 527-28 (2002), for the proposition that “[t]he title of a statute and the heading of a section are tools available for the resolution of a doubt about the meaning of a statute.”).

coherent regulatory scheme and to fit, if possible, all parts into a harmonious whole.”<sup>70</sup> “‘If the statutory language is unambiguous and the statutory scheme is coherent and consistent,’ judicial inquiry must cease.”<sup>71</sup> If, however, the statute is ambiguous, the court “may use canons of construction, legislative history, and the statute’s overall purpose to illuminate Congress’s intent.”<sup>72</sup> Where Congress’s intent remains unclear, deference to the agency’s interpretation of the statute may be appropriate.<sup>73</sup>

Looking at the provision at issue in isolation does not resolve the dispute. As Plaintiffs’ counsel noted at oral argument, the parallel use of “any” before “effluent limitation based on a total maximum daily load or other waste load allocation,” “water quality standard,” and “other permitting standard,” suggests that a revision to any one of those limits or standards requires antidegradation review. At the same time, under Plaintiffs’ reading of the statute, a revision to an effluent limitation based on a water quality standard would not require antidegradation review, while a revision to an effluent limitation based on a total maximum daily load allocation would, which does not appear to make sense.<sup>74</sup> Additionally, as antidegradation policies are aspects of water quality standards, if Plaintiffs are correct, a change to an antidegradation policy

---

<sup>70</sup> *Wing*, 682 F.3d at 867 (citation and internal alteration marks omitted).

<sup>71</sup> *Anchondo*, 684 F.3d at 849 (citation omitted).

<sup>72</sup> *James v. City of Cosa Mesa*, 684 F.3d 825, 830 n.7 (9th Cir. 2012) (citation omitted).

<sup>73</sup> See, e.g., *Sierra Club v. U.S. EPA*, 671 F.3d 955, 961-63 (9th Cir. 2012) (citing, *inter alia*, *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837 (1984)).

<sup>74</sup> Even if an effluent limitation based on a water quality standard might qualify for antidegradation review as an “other permitting standard,” that would likely mean that antidegradation review would essentially be required twice for a revision to a water quality standard – both when the standard is revised, and when the standard is memorialized in effluent limitations, which could also be considered an “other permitting standard.”

would therefore be subject to review to determine whether it was consistent with the current antidegradation policy. Therefore, an antidegradation policy could arguably never be changed because a proposed revision to such a policy would necessarily be inconsistent with the existing version of the policy.

The statutory context provides further guidance. Section 1313 is titled “Water quality standards and implementation plans.” The relevant provision appears under § 1313(d), which is titled “Identification of areas with insufficient controls; maximum daily load; certain effluent limitations revision,” and subsection (d)(4), which is titled, “Limitations on revision of certain effluent limitations.” Thus, although the section itself appears concerned with satisfying water quality standards, the subsection titles appear to narrow the focus of the particular provision to “effluent limitations.”

Additionally, in fuller context, § 1313(d)(4) reads:

(4) Limitations on revision of certain effluent limitations

(A) Standard not attained

...

(B) Standard attained

For waters identified under paragraph (1)(A) where the quality of such waters equals or exceeds levels necessary to protect the designated use for such waters or otherwise required by applicable water quality standards, any effluent limitation based on a total maximum daily load or other waste load allocation established under this section, or any water quality standard established under this section, or any other permitting standard may be revised only if such revision is subject to and consistent with the antidegradation policy established under this section.

Section 1313(d)(4) distinguishes between waters where water quality standards have been attained and where they have not been attained. It also, however, refers back to subsection (d)(1)(A) which provides:

Each State shall identify those waters within its boundaries for which the effluent limitations required by section 1311(b)(1)(A) and section 1311(b)(1)(B) of this title are not stringent enough to implement any water quality standard applicable to such waters. The State shall establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters.

Thus, § 1313(d)(1)(A) is concerned with waters for which certain effluent limitations are not stringent enough to implement the applicable water quality standard. Because § 1313(d)(4) distinguishes between waters that have attained the standards, and waters which have not, however, it would seem odd if subsection (d)(1)(A) would limit antidegradation review to waters where the effluent limitations are not stringent enough to satisfy the applicable water quality standard.<sup>75</sup>

Subsection (d)(1)(A) also specifically refers to § 1311(b)(1)(A), which concerns effluent limitations from point sources requiring “application of the best practicable control technology currently available” as established pursuant to EPA guidelines or which discharge into publicly owned treatment works, and § 1311(b)(1)(B), which concerns effluent limitations for publicly owned treatment works. Additionally, Section 1342(o), which was enacted contemporaneously with § 1313(d)(4) in 1987 to address “anti-backsliding,”<sup>76</sup> indicates that:

---

<sup>75</sup> In their reply brief, Plaintiffs took the position that the statute is ambiguous primarily based on the reference to subsection (d)(1)(A). *See* Dkt. 81 at 28. At oral argument, however, Plaintiffs’ counsel argued that the statutory language unambiguously supports their interpretation.

<sup>76</sup> *See* Pub. L. No. 100-4 § 404 (Feb. 4, 1987).

In the case of effluent limitations established on the basis of section 1311(b)(1)(C) [including, i.e., effluent limitations necessary to meet water quality standards] or section 1313(d) or (e) of this title, a permit may not be renewed, reissued, or modified to contain effluent limitations which are less stringent than the comparable effluent limitations in the previous permit except in compliance with section 1313(d)(4) of this title.<sup>77</sup>

Thus, § 1342(o) and § 1311(b), which is referenced in both § 1313(d)(1)(A) to § 1342(o), are focused on effluent limitations.

The overall statutory structure and related provisions indicate that antidegradation review applies to effluent limitations based on water quality standards, and not water quality standards, themselves. The legislative history of the 1987 amendments strongly confirms this interpretation, as Congress consistently discussed water quality standards in the context of permits and effluent limitations.<sup>78</sup>

To the extent that the statute is arguably ambiguous, however, EPA's interpretation is also relevant. Where Congress's intent is unclear and the statute is "silent or ambiguous with respect to the" precise question at issue, the court may defer to the agency's interpretation under *Chevron* where it "is based on a permissible construction of the statute."<sup>79</sup> "*Chevron* deference is appropriate where 'the agency can demonstrate that it has the general power to make rules

---

<sup>77</sup> 33 U.S.C. § 1342(o)(1).

<sup>78</sup> See Conf. Comm. Rep. No. 99-1004 (1986), reprinted in Mary J. Houghton, *The Clean Water Act Amendments of 1987* 205-08 (1987); 133 Cong. Rec. H131 (Jan. 7, 1987) (section-by-section analysis prepared by the Hon. James J. Howard, Chairman of the House Committee on Public Works and Transportation), reprinted in 1987 U.S.S.C.A.N. 5, 36-38; *A Legislative History of the Water Quality Act of 1987* 842-46, 1466-67 (1988). When questioned about the legislative history at oral argument, Plaintiffs' counsel suggested that the relevant discussions in it relate only to § 1342(o). This, however, is not the case. The discussions that specifically relate to subsection (b)(4)(B) support EPA's interpretation.

<sup>79</sup> See, e.g., *Sierra Club v. U.S. EPA*, 671 F.3d 955, 961-62 (9th Cir. 2012) (citing *Chevron, U.S.A., Inc. v. Natural Res. Def. Council, Inc.*, 467 U.S. 837, 842-43 (1984)).

carrying the force of law and that the challenged action was taken in the exercise of that authority.”<sup>80</sup> Interpretations which lack the force of law – such as those “contained in policy statements, agency manuals, and enforcement guidelines” – generally “do not warrant *Chevron*-style deference.”<sup>81</sup> They may, however, still be entitled to *Skidmore* deference as they “constitute a body of experience and informed judgment to which the courts and litigants may properly resort for guidance.”<sup>82</sup> Where an agency interpretation was not intended to carry the general force of law, the court will accord the interpretation weight according to the “interpretation’s thoroughness, rational validity, and consistency with prior and subsequent pronouncements.”<sup>83</sup>

As the Ninth Circuit has previously recognized, EPA has the authority to interpret the CWA,<sup>84</sup> including the specific provisions at issue here.<sup>85</sup> EPA, however, has never addressed the precise question at issue here in a formal rulemaking. The Parties cite a number of documents generated by EPA discussing the applicability of antidegradation review, such as manuals, handbooks, and other guidance documents. These materials, however, do not warrant *Chevron*-style deference. They are also contradictory and not particularly persuasive. The documents cited by EPA are primarily concerned with permitting issues, so consequently, it is not surprising

---

<sup>80</sup> *Id.* at 962 (citations omitted).

<sup>81</sup> *Id.* (citations omitted).

<sup>82</sup> *Id.* (citing, *inter alia*, *Skidmore v. Swift & Co.*, 323 U.S. 134, 140 (1944)).

<sup>83</sup> *Id.* (citations omitted).

<sup>84</sup> *Pronsolino v. Nastri*, 291 F.3d 1123, 1132-33 (9th Cir. 2002) (according *Chevron* deference to EPA’s interpretation of the CWA).

<sup>85</sup> *See* 33 U.S.C. §§ 1313(c)(2), 1361(a).

that they discuss antidegradation review in the context of permitting.<sup>86</sup> In addition, the materials cited by Plaintiffs purport to interpret the EPA's regulations, which predate the statute.<sup>87</sup>

EPA has, however, interpreted the statute in a manner consistent with the position that it has taken in this litigation in the rulemaking context, albeit not in a regulation specifically put forward to resolve the ambiguity at issue here.<sup>88</sup> Under that view, antidegradation review is required for revisions to effluent limitations whether they are based on water quality standards, total maximum daily loads, waste load allocations, or other permitting standards. EPA's

---

<sup>86</sup> See U.S. Environmental Protection Agency, *NPDES Permit Writers' Manual* § 7.2.1.3, at 7-3 (Sept. 2010), available at [http://cfpub.epa.gov/npdes/writermanual.cfm?program\\_id=45](http://cfpub.epa.gov/npdes/writermanual.cfm?program_id=45) (last visited Aug. 18, 2012) (indicating that under § 1313(d)(4)(B), "a limitation based on a TMDL, WLA, other water quality standard, or any other permitting standard may only be relaxed where the action is consistent with [the] state's antidegradation policy."); James R. Elder, Director, Office of Water Enforcement and Permits, *Draft Interim Guidance on Implementation of Section 402(o) Anti-backsliding Rules for Water Quality-Based Permits*, at 7 n.9 (Sept. 1989), available at <http://www.epa.gov/npdes/pubs/owm0354.pdf> (last visited Aug. 18, 2012) (indicating that § 1313(d)(4)(B) "allows for the relaxation of permit limitations based on a § 303 TMDL/WLA, any water quality standard established under § 303, or any other permit standard . . .").

<sup>87</sup> See U.S. Environmental Protection Agency, *Water Quality Standards Handbook: Second Edition* § 4.8, available at <http://water.epa.gov/scitech/swguidance/standards/handbook/chapter04.cfm> (last visited Aug. 18, 2012) ("Any one or a combination of several activities may trigger the antidegradation policy analysis. Such activities include a scheduled water quality standards review, the establishment of new or revised load allocations, waste load allocations, total maximum daily loads, issuance of NPDES permits, and the demonstration of need for advanced treatment or request by private or public agencies or individuals for a special study of the water body."); U.S. Environmental Protection Agency Region 9, *Guidance on Implementing the Antidegradation Provisions of 40 CFR 131.12*, at 2-3 (June 1987), available at [http://water.epa.gov/scitech/swguidance/standards/adeg/upload/Region9\\_antideg\\_guidance.pdf](http://water.epa.gov/scitech/swguidance/standards/adeg/upload/Region9_antideg_guidance.pdf) (last visited Aug. 18, 2012) ("Actions covered by the antidegradation provisions include, but are not limited to the following: . . . [w]ater quality standards revisions").

<sup>88</sup> 63 Fed. Reg. 36,742, 36,779 (July 7, 1998) ("The 1987 Water Quality Act Amendments to the Clean Water Act (CWA) explicitly incorporated reference to antidegradation policies in section 303(d)(4)(B), which requires that such antidegradation requirements be satisfied prior to modifying certain NPDES permits to include less stringent effluent limitations (this concept is referred to as antibacksliding).").



interpretation does not preclude antidegradation review for revisions to water quality standards, but rather places antidegradation review at the same point in the CWA process as it does for other revisions – the point where the revisions are memorialized in effluent limitations. EPA’s interpretation is both permissible and reasonable, and therefore, is also entitled to deference.<sup>89</sup>

Accordingly, in light of the intent expressed by Congress as it is apparent in the full statutory scheme and legislative history, and alternatively, EPA’s persuasive interpretation, the Court concludes that antidegradation review is required for revisions to effluent limitations based on water quality standards, and not for revisions to water quality standards, themselves. Therefore, EPA and ADEC were not required to perform an antidegradation review prior to approval of the site-specific criterion.<sup>90</sup>

## **V. CONCLUSION**

For the foregoing reasons, Plaintiffs’ motion for summary judgment (Docket No. 61) is DENIED. EPA’s motion for summary judgment (Docket No. 74) is GRANTED.

Dated at Anchorage, Alaska, this 13th day of September, 2012.

/s/ Timothy M. Burgess  
TIMOTHY M. BURGESS  
UNITED STATES DISTRICT JUDGE

---

<sup>89</sup> *Cf. Schuetz v. Banc One Mortg. Corp.*, 292 F.3d 1004, 1012 (9th Cir. 2002) (according deference to policy statements published in the Federal Register).

<sup>90</sup> As EPA and Intervenor note, Plaintiffs may still challenge the antidegradation review after the site-specific criterion is incorporated into the Red Dog Mine NPDES permit.